

The Health Status of African Americans in California



A. Eugene Washington,
M.D., M.Sc.

Susan E. Watson, M.P.H.

Mark Alexander, Ph.D.

Andrew Bindman, M.D.

Howard Pinderhughes, Ph.D.

Eliseo J. Pérez-Stable, M.D.

The Medical Effectiveness
Research Center
for Diverse Populations,
School of Medicine,
University of California,
San Francisco

MH97D3282

The California Endowment and
California HealthCare Foundation

April 1997

The Health Status of African Americans in California

**The California Endowment *and*
California HealthCare Foundation**

April 1997

The California Endowment and California HealthCare
Foundation were established by Blue Cross of California

Published by The California Endowment and California HealthCare Foundation

April 1997

Woodland Hills, California

To order publications please call 818.703.3311 x503. Publications are made available to the public at no charge, however we ask that you limit your request to one (1) copy per publication.

I t is bad enough that a man should be
ignorant, for this cuts him off from the
commerce of men's minds. It is perhaps
worse that a man should be poor, for this condemns
him to a life of stint and scheming, in which there is
no time for dreams and no respite for weariness. But
what surely is worst is that a man should be unwell,
for this prevents his doing anything much about
either his poverty or his ignorance.

– C.H.T. Kimble

Contents

Preface	i
Acknowledgment	ii
Introduction and Background	iii
1. Defining the Population	1
A. Demographic Profile	
B. Special Considerations	
C. The Future	
2. Health Status	15
A. Leading Causes of Mortality	
B. Leading Causes of Morbidity	
C. Birth Outcomes	
D. Other Key Problems	
E. Special Considerations	
3. Determinants of Health	27
A. Individual Behaviors	
B. Provider/System Access	
4. Key Issues, Challenges, and Recommendations	41
A. Overview	
References	49
Figures & Tables	53

Preface

Prior to the establishment of The California Endowment (TCE) and the California Healthcare Foundation (CHF), Blue Cross of California commissioned five papers on the health status of California's public. TCE and CHF subsequently assumed responsibility for the project and completed the production of these five papers for public dissemination.

Each of the five papers focuses on a significant ethnic/racial population in California: African Americans; Whites; Latinos; American Indians; and Asian and Pacific Islander Americans. The goal of these papers is to go beyond epidemiology in order to explain or hypothesize factors that gave rise to these data and to better understand how health impacts the content and context of people's lives. Although the authors were asked to follow a standard format, wide latitude was granted to ensure the authors' unique voices in making the statistics more meaningful. For example, some authors emphasized how past historical experiences shaped a population's health today, others focused on the impact of financial and non-financial barriers to care and some honed in on the challenges facing certain populations and made recommendations for change.

Each report is available separately, but we hope you will consider reviewing the set of papers to gain a deeper perspective on the challenges that remain to reduce the variation in health status among the different ethnic/racial populations that together make California the most diverse, fascinating, and unique state in the nation.

Dana E. McMurtry
Director, Health Policy Research

The California Endowment

Acknowledgment

We thank our many colleagues at the Medical Effectiveness Research Center (MERC) for Diverse Populations who provided valuable comments and suggestions as we developed this report. Principal support for MERC is provided by a MEDTEP Research on Minority Populations Grant from the Agency for Health Care Policy and Research, U.S. Department of Health and Human Services.

Introduction and Background

In this report we focus on the health status of African Americans in California. Our goal is to inform policy decision-makers about the health status and health needs of African Americans, and to broadly outline key steps that must be taken to arrest the alarming trends now being observed.

Specifically, we describe the contours and features of African Americans' health, identify and describe the processes and dynamics that shape them, identify trends in geographic distribution within the state, and recommend strategies to address current health needs, as well as those of a future generation. African Americans have strikingly high mortality rates (NCHS; NCI; Otten; Kittner; Cowie). National data indicate that age-adjusted mortality is 74%–130% higher for African Americans than for Whites (NCHS; Otten). More than three-quarters of these excess deaths are due to six disease categories: heart disease and stroke; homicide and accidents; cancer; infant mortality; cirrhosis; and diabetes.

Disturbing as these statistics are, they still fail to portray the true dimensions or magnitude of the health problems besetting African Americans, because they do not reflect the disproportionate morbidity suffered before dying. For example, among African Americans with diabetes mellitus, amputation occurs 2.3 times more frequently than among Whites overall and 15 times more often than for Whites ages 45–64 years (Most). Similarly, glaucoma, though nonfatal, leads to blindness in African Americans at a rate seven times that for Whites (Hiller, Tielsch).

Important factors contributing to the poor status of African Americans include problems with health information, health care access, delivery and financing of services, health professional development, and research. African Americans' knowledge, attitude and beliefs about health and disease, as well as their specific health-related behaviors, are also known to be significant determinants of their health status. What remains as a central question in attempting to improve their health status is what are the most effective approaches to promoting health and

preventing disease in African American communities? This is a particularly challenging question because insufficient research has been conducted on the appropriateness and effectiveness of health services and procedures, and almost none of this research has concentrated on African Americans.

1. Defining the Population

A. Demographic Profile

Population

In 1993, the state of California had a total population of almost 32 million. The Department of Finance estimates that nearly 7% (2.2 million) of that population was African American. A very small portion of the African Americans in California were not born in the U.S. (4%). For the purposes of this report, we have combined the U.S. born and foreign born data for a single representation of African Americans, and will discuss this issue further in a later section.

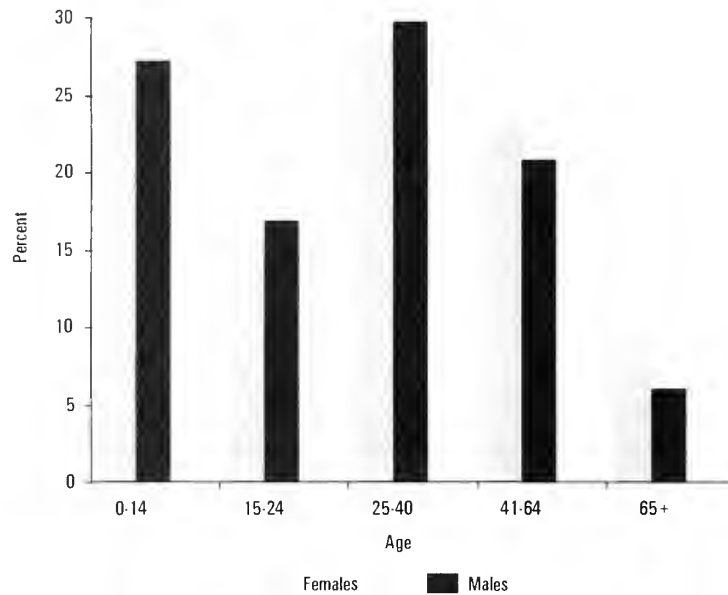
There were similar numbers of males and females in the population in 1993. The number of females did not exceed the number of males until the ages above 40. The median age of the population in 1990 was 28.9 years old and is estimated to be around 30 years old in 1995 (CCSCE). Compared to Whites, African Americans appear to be a somewhat younger population, with less than 10% being over 65 years of age (vs. 15% for Whites).

Table 1.

Population of African Americans in California, 1993

Age Group (yrs.)	African Americans (2,223,611)		% of State Total (31,906,308)
	Males (% of total)	Females (% of total)	
0–14	298,471 (13.4)	290,705 (13.1)	7.9
15–24	184,701 (8.3)	161,158 (7.2)	7.7
25–40	325,618 (14.6)	317,664 (14.3)	7.1
41–64	227,748 (10.2)	254,472 (11.4)	6.4
65+	65,117 (2.9)	97,957 (4.4)	4.8
Total	1,101,655 (49.5)	1,121,956 (50.5)	6.96

SOURCE: California Department of Finance, 1993 Population Estimates for California Counties

*Figure 1.***Distribution of African Americans in California, by Age and Sex, 1993**

SOURCE: California Department of Finance, 1993 population estimates for California counties

Geographic Distribution

To provide a picture of where African Americans live within the state and to better understand health status, we mapped out the state using the ten regions initially recommended by The California Endowment (today, an eleven region map is used). With this breakdown it can be seen that approximately 45% of African Americans live in the Los Angeles region, followed by the Bay Area (19%). Additionally, we have mapped out the distribution of African Americans in the state at the individual county level. There are African Americans in every region of the state.

Figure 2.

**Geographic Distribution of African Americans in California,
by Region, 1990**

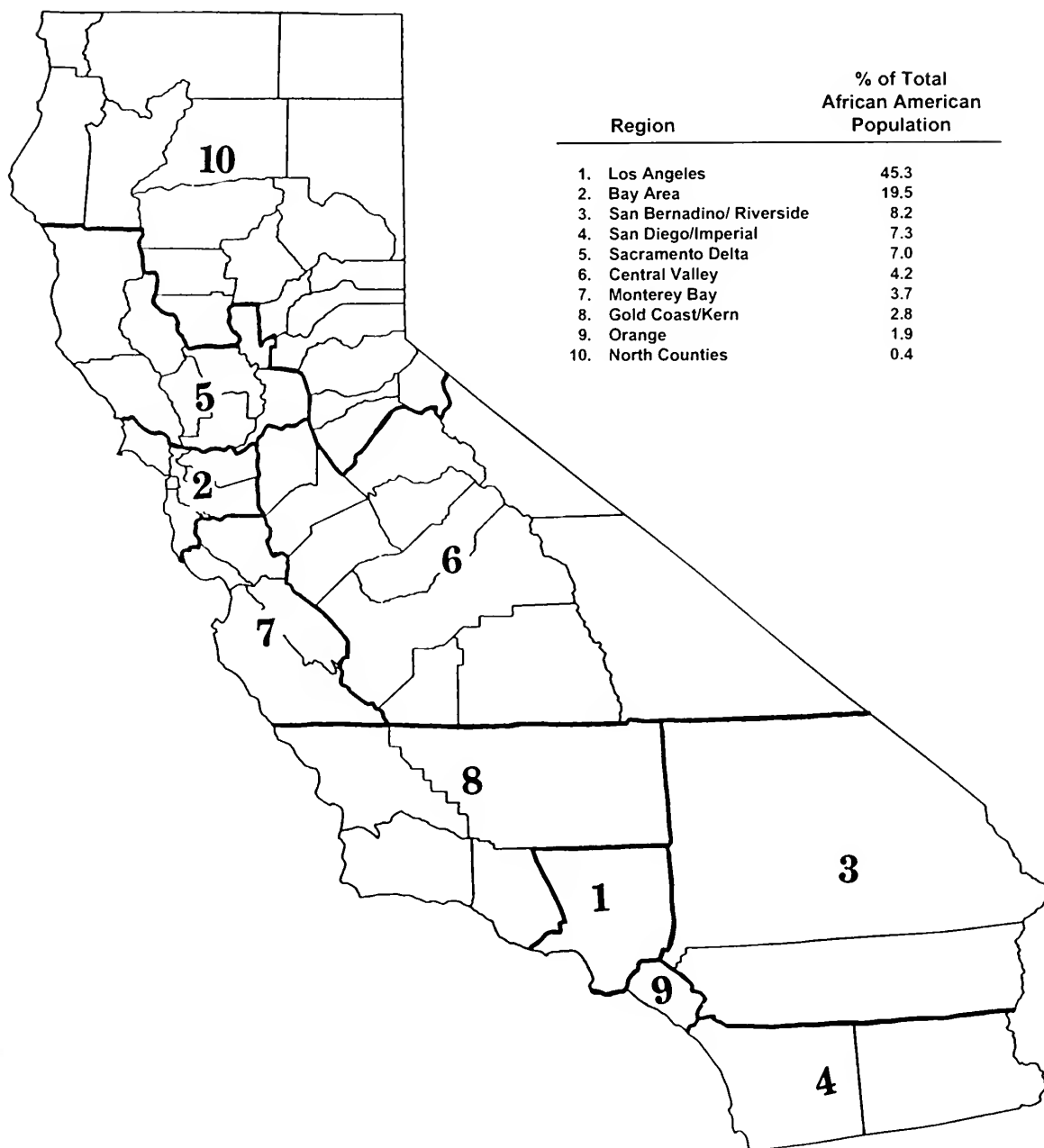


Figure 3.

**Geographic Distribution of African Americans in California,
by County, 1990**

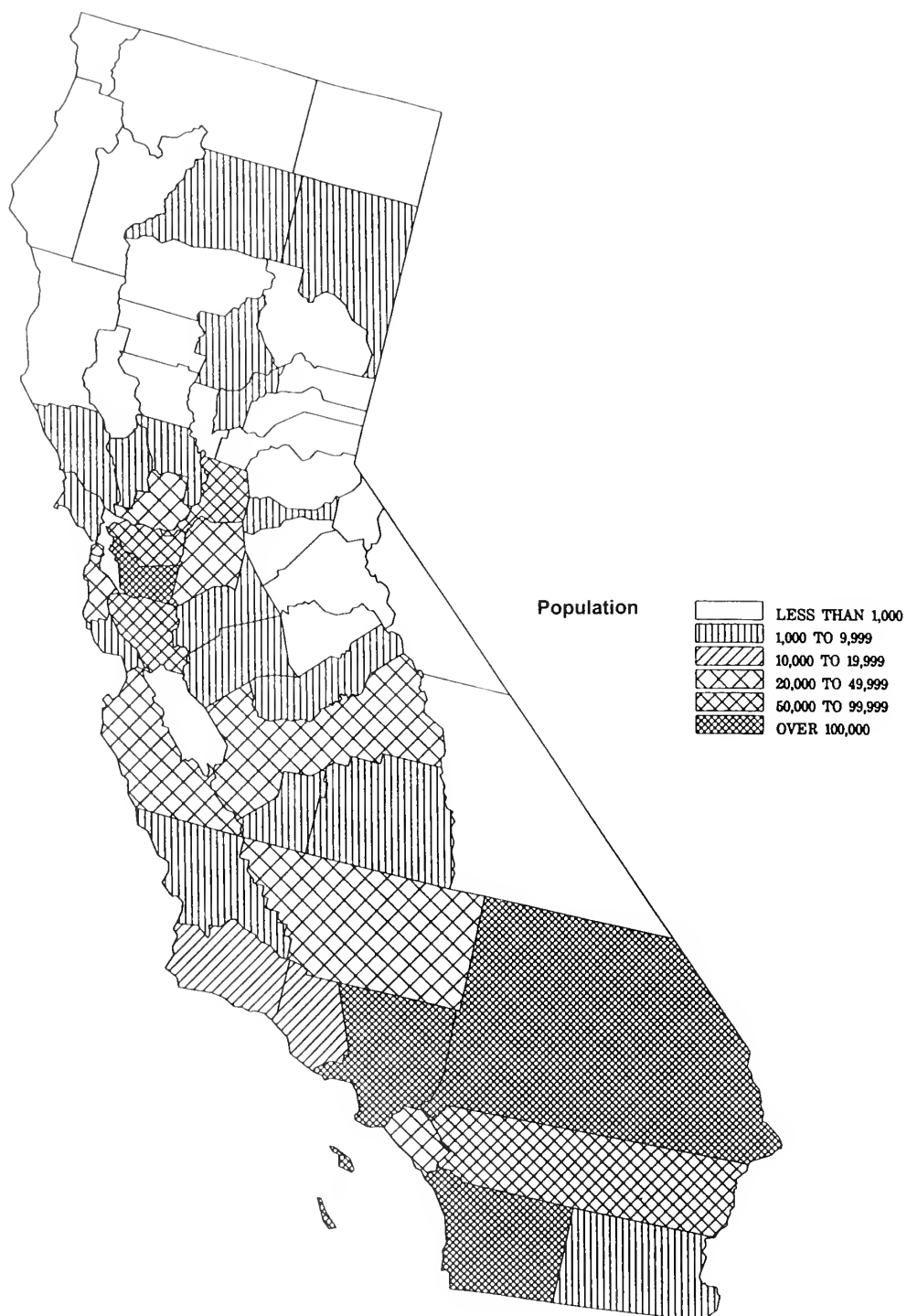


Table 2.

Geographic Distribution of African Americans, 1990

Region	Counties	African American Population	Region Total	% of State
Los Angeles	Los Angeles	990,406	990,406	45.20
Bay Area	Alameda	229,316	425,141	19.40
	San Francisco	78,931		
	San Mateo	34,580		
	Marin	7,998		
	Contra Costa	74,316		
San Bernardino/Riverside	San Bernardino	115,302	178,698	8.16
	Riverside	63,396		
San Diego/Imperial	San Diego	157,495	160,332	7.32
	Imperial	2,837		
Orange	Orange	41,632	41,632	1.90
Gold Coast/Kern	Ventura	15,741	61,237	2.79
	Santa Barbara	10,162		
	San Luis Obispo	5,655		
	Kern	29,679		
Monterey Bay	Santa Clara	55,365	80,333	3.67
	Monterey	22,679		
	Santa Cruz	2,289		
Central Valley	Fresno	32,869	91,519	4.18
	San Joaquin	26,885		
	Stanislaus	6,039		
	Tulare	4,548		
	Merced	8,778		
	Kings	8,380		
	Madera	2,509		
	Toulumne	1,511		
Sacramento Delta	Sacramento	96,966	152,763	6.97
	Solano	46,063		
	Sonoma	5,554		
	Yolo	3,115		
	Napa	1,065		
North Counties	Butte	2,098	8,984	0.41
	Shasta	1,120		
	Yuba	2,379		
	Amador	1,690		
	Lassen	1,697		
Total			2,191,045	100%

SOURCE: 1990 Census of Population, California

Household Characteristics

Over 68% of African Americans live in family households (married or related individuals living together). Approximately 35% of African Americans are married and these couples constitute about half of the family households. The majority of the remainder of family households are headed by a single female. Additionally, 37% of all households had children in them (CCSCE).

The average size of households has been rising slightly. In 1990, the average household size for African Americans was 2.88, and approximately 2.96 in 1995. These household sizes are larger than those for Whites, but smaller than those for Asians and Latinos (CCSCE).

Table 3.

African American Households by Family Type, 1990

Type	Percent of Population
<i>Family Households*</i>	
Married Couples	34.8%
Male Head-single	5.3%
Female Head-single	28.0%
Total Family Households	68.1%
<i>Non-Family Households**</i>	
Male Head	14.9%
Female Head	17.0%
Total Non-Family Households	31.9%

* Family Households include a householder and one or more persons living in the same household who are related to the householder by birth, marriage, or adoption (CCSCE).

** Non-Family Households includes all the persons who occupy a housing unit (CCSCE).

SOURCE: 1990 Census PUMS Readable File.

Education

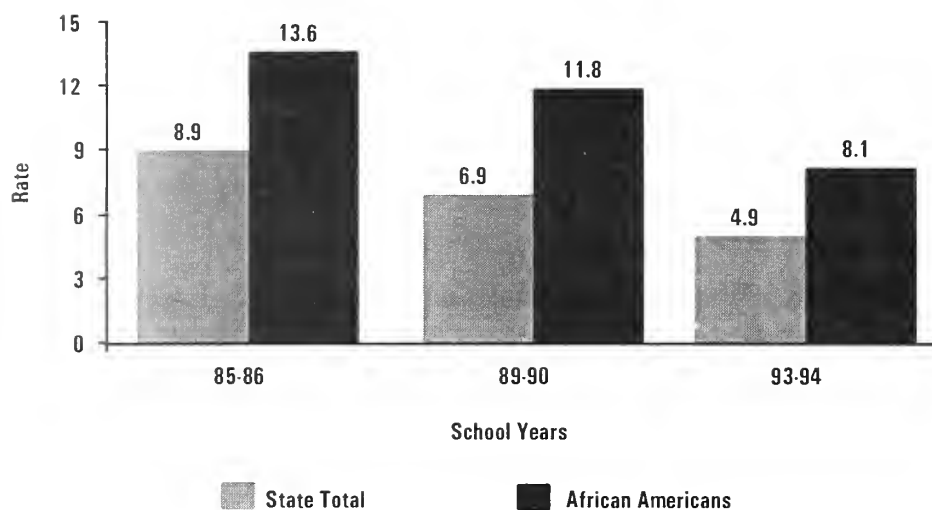
In 1990, the U.S. Census estimates that in California, 31% of African Americans over the age of 3 were enrolled in school. Of those who were enrolled, most were attending public schools or colleges (87%) (U.S. Census). The drop-out rate for African Americans in high school remained approximately twice the average for the entire state over the past 10 years. The rate is still the highest in the state, but it has been steadily dropping each year.

Table 4.

African Americans' Educational Attainment, 1990	
Grade	Percent of Population
9 th grade	6.8%
9 th –11 th grade	9.7%
12 th grade, no diploma	7.6%
12 th grade, diploma or GED	24.1%
Some college, no degree	27.6%
AA degree	9.3%
BA degree	10.1%
Graduate degree	4.8%

SOURCE: 1990 Census PUMS Readable File

The same proportion of individuals are completing high school and receiving diplomas or getting their GED as those who are not (24.1%). Many go on to college, but don't finish (27.6%). Over 24% of African Americans receive an associate level degree or higher. Language is an important factor in educational attainment. Over 98% of African Americans in California either speak only English or speak it very well (PUMS). Despite the proficiency with English, there is information that some African Americans speak a variation of English – “Black English.” This may impact how a student interprets and dispenses information, and therefore, how well that student performs in school. A school district in Northern California has recently created English-as-a-Second-Language classes for their African American students in an attempt to better reach and engage those students.

*Figure 4.***California Public School Dropout Rate Trend for Grades 9-12**

SOURCE: California 1990 PUMS Machine Readable File

Household Income and Occupational Status

Approximately 20% of both African American individuals and families had incomes below the poverty level in 1989 (U.S. Census). Additionally, over 13% of African Americans over 16 years of age received public assistance. This is more than twice the state average of 5.1% (PUMS). In 1990, the median income of African American families was \$29,453 and \$26,079 for households (using 1989 dollars). This was the lowest average income for all racial/ethnic groups in the state for households and second lowest for families (U.S. Census).

The majority of African Americans participate in the labor force (65%) (PUMS). On average, from 1992–94, most African Americans worked in sales, administrative, or technical support occupations. Additionally, African Americans fell below the state average for being in managerial and professional occupations, and farm workers (19.3% vs. 27.3% and 0.9% vs. 3.5%, respectively).

Table 5.

Occupational Status, 1992–1994 Average

Occupation	African Americans	State's Total Labor Force
Managerial and Professional	19.3%	27.3%
Sales, Admin, and Tech Support	40.2%	31.5%
Service Workers	19.1%	13.4%
Precision and Craft Workers	6.8%	10.9%
Operators and Laborers	13.4%	13.3%
Farm Workers	0.9%	3.5%

SOURCE: Center for Continuing Study of the California Economy, California Population Characteristics, 1995

B. Special Considerations

Origin/Acculturation

One could assume that place of origin is important in how a group fares in their current place of residence. Approximately 46% of the African Americans in California migrated here from other states within the U.S. (U.S. Census). On average, it has been found that domestic migrators to California tend to have higher incomes, are better educated, and are less likely to be unemployed (CCSCE). As mentioned earlier, approximately 4% of the African Americans in California were born outside of the U.S.. This number is small enough that it could be said that African Americans are the most homogeneous population in the state. Nevertheless, African Americans don't seem to be doing well in the key areas of consideration like education, income, incarceration, health status.

If place of origin isn't a major factor in assessing the status of African Americans, then maybe consideration should be given to the notion of acculturation. Acculturation is the adaptation of an individual or a group's culture to another culture. Several studies have been performed on the impact of acculturation on other ethnic groups, but not on African Americans. Traditionally, African Americans have been regarded solely as a race, and not also as an ethnic group with a distinct culture (Landrine). While there has been growing proof of such a culture (and the African roots of it), an African American Acculturation Scale has just recently been constructed (Landrine). More research into this area might help to further explain the differences in behaviors, and therefore, outcomes within and among ethnic groups.

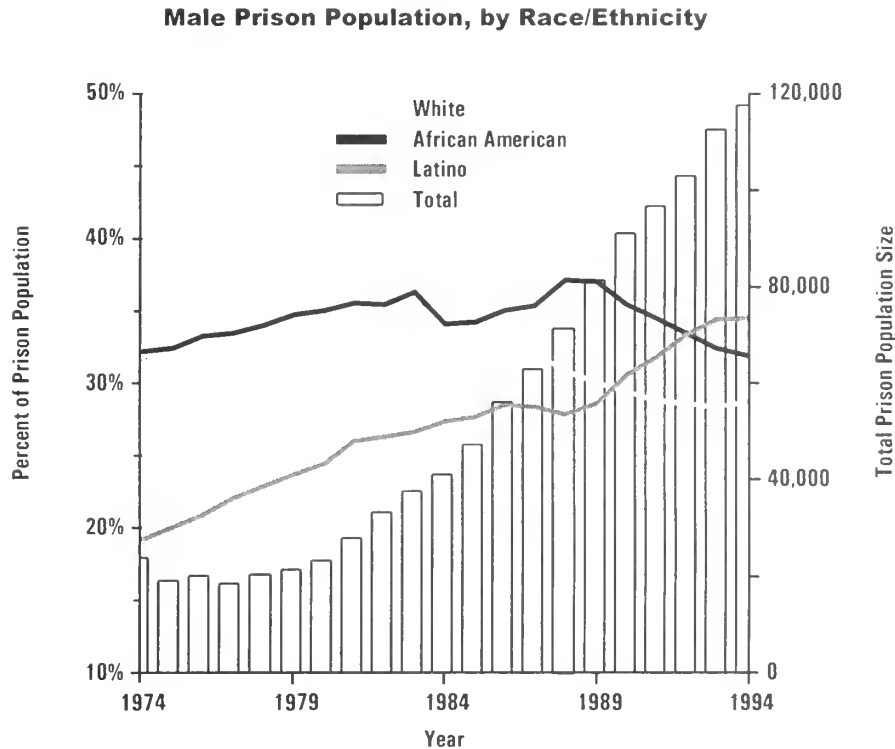
Incarceration

The United States has the highest imprisonment rate in the world. California has the largest prison system in the country.

In 1994, there were 125,605 people (117,390 males and 8,215 females) incarcerated in California. This number has been steadily increasing for both males and females over the past 20 years. The racial/ethnic makeup of the prison population has also been changing. In the past 20 years, the proportion of White males has been decreasing (from 47% to 29%), Latino males increasing (from 19% to 35%), and African American males remained basically the same (32%). The trend for female prisoners has been very similar:

White females decreasing from 54% to 37%, Latinas increasing from 14% to 24%, and African American females roughly the same, from 30% to 34%.

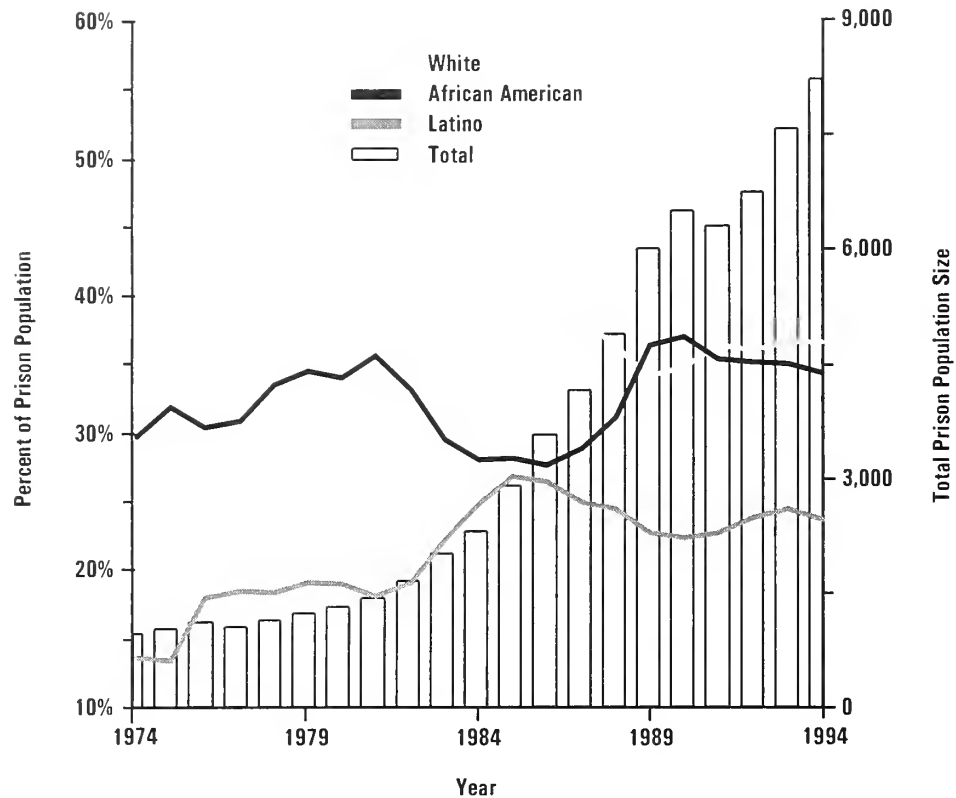
Figure 5.



SOURCE: State of California Department of Corrections, 1995

Based on California's 1993 population estimates for individuals over the age of 15, 0.46% of White, 1.21% of Latino, and 4.5% of African American males were in prisons. In other words, Latinos were 2.6 times, and African American males 9.8 times more likely to be incarcerated than White males. Among women, 0.04% of White, 0.06% of Latina, and 0.32% of African American females over the age of 15 were incarcerated. Latinas were 1.5 times more likely to be in prison than Whites, and African American females eight times more likely.

Figure 6.

Female Prison Population, by Race/Ethnicity

SOURCE: State of California Department of Corrections, 1995

Incarceration is important when considering the profile of African Americans in California—now and in the future. The complex interactions between America’s legacy of racism, employment discrimination, poverty, and low education have been historically identified as major factors in the high arrest and incarceration rates of African Americans (Weatherspoon, Jones, Massey). Incarceration can impact population growth, family structure, educational attainment, employment, and health status. These impacts can be even greater if the prison system lacks appropriate rehabilitation programs (e.g., drug rehabilitation, education programs, transition programs). Unfortunately, the number of African Americans in California’s criminal justice system may accelerate because of the growing criminal justice industry; the new “get tough” legislation (e.g., “Three Strikes” Law); the continuing decline in the social fabric of young African Americans; and the disproportionate impact of the “war on drugs” on minority populations (Fry,

Mauer). Without the implementation of appropriate and creative social interventions, these trends will not improve.

The Homeless

The 1990 Census estimated the homeless population in California (shelters and visible on streets) to number 48,887. Furthermore, African Americans comprised approximately 26% (12,740) of the state's homeless (U.S. Census). This estimate has been vigorously disputed by several California cities and a host of advocates for the homeless as being excessively low. California municipalities have joined others in litigation aimed at correcting the problem of underreporting minority populations (*State of Wisconsin v. City of New York, et al.*). However, even by conservative estimates African Americans make up an excess proportion of California's homeless population.

Homelessness impacts the ability of an individual to access available services (health and otherwise). Homeless individuals are also susceptible to a broader range of diseases than others (e.g., tuberculosis, HIV, and malnutrition). To better understand this marginalized group, particularly those who are African American, more studies need to be conducted on the magnitude of the problem, risk factors for becoming homeless, and the subsequent poor health outcomes associated with this population.

C. The Future

It has been estimated that California will continue to grow faster than the nation and will continue to become more ethnically diverse (CCSCE). Around the year 2000, about half of the state's population will be represented by ethnic minorities (CCSCE). Furthermore, CCSCE projects that the African American population will continue to grow, but slower than the state total (6.9% in the next 10 years).

If the growing trend for intermarriages continues, then census reporting for racial/ethnic groups might need to become less structured. Individuals may want more options to better self-identify themselves—which may make census reporting more complicated. Children of mixed heritage may also be multilingual, which could have impact on the structure of the educational system.

2. Health Status

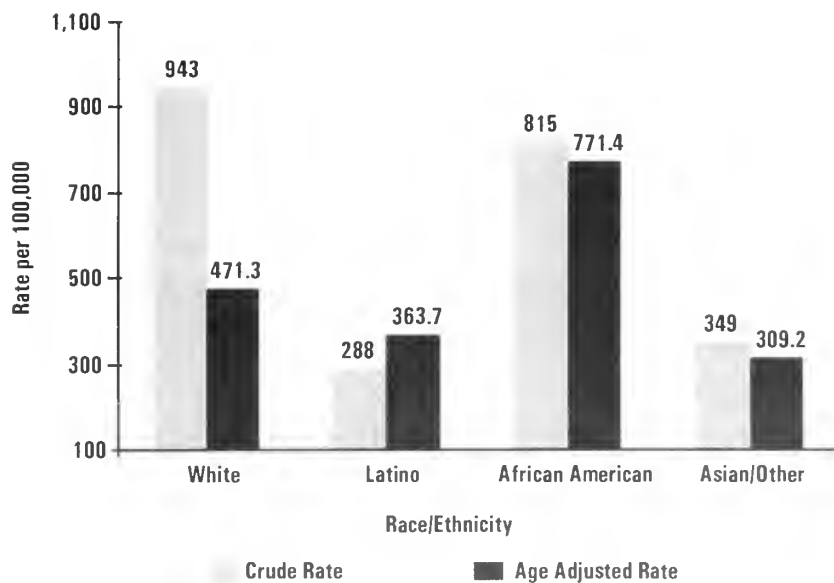
A. Leading Causes of Mortality

In 1993, there were 220,271 deaths in California (DOHS, 1993). Approximately 8.3% (18,246) of those deaths were African Americans of all ages (DOHS, 1993). Based on a crude rate (status quo), African Americans had the second highest overall mortality rate in the state (815 per 100,000), but when mortality is adjusted for age, African Americans have the highest death rate in the state (771.4 per 100,000) compared to other racial/ethnic groups.

The ten leading causes of age-adjusted death rate for African Americans varies somewhat from the leading causes for the entire state.

Figure 7.

California Death Rates, 1993

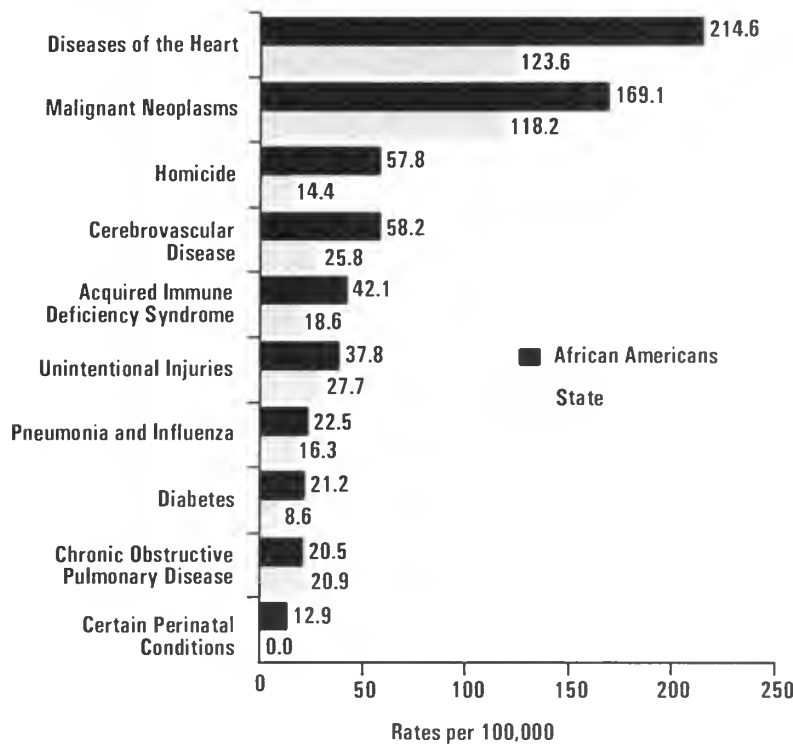


SOURCE: State of California, Department of Health Services, Death Records
State of California, Department of Finance, 1993 population estimates for California counties

Rank	African Americans	State of California
1.	Diseases of the Heart	Diseases of the Heart
2.	Malignant Neoplasms	Malignant Neoplasms
3.	Cerebrovascular Disease	Unintentional Injuries
4.	Homicide	Cerebrovascular Disease
5.	Acquired Immune Deficiency Syndrome (AIDS)	Chronic Obstructive Pulmonary Disease
6.	Unintentional Injuries	AIDS
7.	Pneumonia and Influenza	Pneumonia and Influenza
8.	Diabetes	Homicide
9.	Chronic Obstructive Pulmonary Disease	Diabetes
10.	Certain Perinatal Conditions	Suicide

African Americans had a higher age-adjusted death rate for all leading causes in 1993, except for chronic obstructive pulmonary disease (COPD). The lower rank of COPD as a cause of death may reflect the fact that African Americans smoke fewer cigarettes per day compared to Whites. However, African Americans were dying at twice the rate observed for the state for most of the leading causes (i.e., homicide, cerebrovascular disease, AIDS, diabetes, and certain perinatal conditions). Diseases of the heart and malignant neoplasms account for the majority of deaths for all racial/ethnic groups nationally and in California. Cerebrovascular disease remains the third leading cause of death among African Americans compared to unintentional injuries for the state overall. This reflects the higher prevalence and greater severity of hypertension among African Americans, since hypertension is the most important risk factor for cerebrovascular disease. It is noteworthy that homicide ranks fourth among causes of death for African Americans compared to eighth overall for the state, which highlights the public health emergency of violence. The higher death rates for AIDS and diabetes are also consistent with the known prevalence of these conditions among African Americans.

Figure 8.

Top Ten Causes of African American Deaths, 1993, Age-adjusted Rate

SOURCE: State of California, Department of Health Services, Death Records
 State of California, Department of Finance, 1993 population estimates for California counties

B. Leading Causes of Morbidity

Evaluating the top ten causes of death among African Americans in California emphasizes major health problems and how life expectancy is impacted. There are several health conditions that lead to substantial morbidity and contribute to mortality, but may not be included in the leading causes of death. Furthermore, the concept of preventable morbidity and mortality needs to be prioritized in planning programs for African Americans. Based on these principles, we have developed a list of the most important causes of morbidity for the African American community that would otherwise be excluded in evaluating the leading causes of death. These include: hypertension; cancer; sexually transmitted diseases (chlamydia, gonorrhea, and syphilis); tuberculosis; asthma; and arthritis.

Hypertension

Between 1972 and 1990, the U.S. experienced a significant reduction in the mortality rates for coronary heart disease (50%) and stroke (57%) in both White and African American men and women (JNC). This is compared to a decrease of <10% in mortality from all non-cardiovascular diseases (Sytkowski). Recent data from the Framingham study suggests that the decrease in incidence of coronary heart disease is related to changes in lifestyle and to treatment of hypertension (Ibid). In California, two large population based surveys conducted in 1979 and 1983 confirmed national data that African American men and women are more likely to have elevated systolic and/or diastolic blood pressure at a single reading (Igra). African Americans not only have a higher prevalence of hypertension (30% compared to 20% of Whites), but clinical studies indicate a greater severity of hypertension and substantially higher mortality from its major clinical consequences. Although major advances have been made in achieving improved control of blood pressure among all populations, treatment of hypertension requires access to health care, an ongoing relationship to a primary care clinician, and long-term adherence to a regimen for an asymptomatic condition. Given that hypertension is a major risk factor for diseases of the heart and cerebrovascular disease, and it compounds the complications of diabetes, and the detection, treatment, and control of elevated blood pressure, it is a public health priority.

Cancer

Cancer is the second leading cause of mortality in African Americans and is a major cause of preventable morbidity. Mortality from breast, cervical, and colorectal cancers can be reduced by appropriate use of effective screening tests. Screening for prostate cancer is controversial and screening for lung cancer has no measurable impact on mortality.

Breast cancer is the most frequently diagnosed cancer in African American women. Although incidence of breast cancer among African American women is substantially lower compared to White women, mortality from breast cancer is similar and even somewhat higher in women younger than 45 years of age. Starting mammography screening at 50 years of age, at intervals of one to two years, has been shown to reduce mortality from breast cancer by about 30% in several large randomized studies.

The benefit of mammography screening does not appear to vary by race/ethnicity although insufficient data are available. Nationally, African American women are less likely to have had a mammography screening, but these differences have been substantially reduced in the past decade. In the San Francisco Bay area, a survey of five ethnic groups (White, African American, Latino, Vietnamese, and Chinese) showed that African American and White women had similar rates of lifetime and within two year mammography screenings. There are few data on maintenance of interval mammography screening in any ethnic group.

Cervical cancer is the fourth most frequently diagnosed cancer in African American women in California compared to second for Latinas, and 12th for White women. Based on case control studies, Pap smears starting at age 20 years and continuing at intervals of every one to three years, decreases mortality from cervical cancer. Five-year survival rates from cervical cancer are lower for Latinas (48%) and African Americans (50%) compared to White women (66%). Although the frequency of Pap smear screening among African American and Latina women relative to White women has increased over the past decade, the projected five-year survival rate has actually decreased for African American women from 63% in 1974–1976 to 55% in 1983–1988. The excess and preventable mortality from cervical cancer results largely from later detection, especially among older women who have never been screened.

Lung cancer is the leading cause of cancer mortality for African Americans and all Californians, and cigarette smoking causes 85% to 90% of all lung cancers. Lung cancer is the second most frequently diagnosed cancer among African Americans and Whites in the state. Mortality from lung cancer among African American men and women continues to increase compared to the modest, but significant, decrease among White men observed in the past decade. Preventing the initiation of cigarette smoking among adolescents and young adults, and implementing smoking cessation interventions at the population level are the principal strategies to prevent morbidity and mortality from lung cancer.

Colorectal cancer is the second most common cancer and has the second highest mortality rate for cancers for men and women. Among African Americans in California, colorectal cancer is the second and third most frequently diagnosed cancer in women and

men, respectively. The average patient with colorectal cancer loses about six years of life, and approximately 60% will have regional or distant metastases at the time of diagnosis. Screening sigmoidoscopy was shown in a case-control study to reduce the risk of death from colorectal cancer by nearly 60% (adjusted OR=0.41; 95% CIs=0.25–0.69). Although the use of fecal occult blood tests (FOBT) as a screening tests remains controversial, there is evidence that it may be a useful tool in decreasing mortality from colorectal cancer over the long term. A recent study reports that neither of these screening tests are widely used by members of a health plan in Northern California.

A man has only a 6%–8% chance of having clinical prostate cancer during his lifetime. The majority (90%) of prostate cancer cases remain clinically inapparent and unimportant. In California, prostate cancer is the most frequently diagnosed cancer among African American men. Although controversial, some evidence implies that prostate cancer may be biologically more aggressive among African Americans. However, a more advanced presentation of the disease may explain the observed mortality differential between African Americans and Whites. Screening for prostate cancer is very controversial and there is no evidence that available tests (digital rectal examination or a serum prostate specific antigen test) impact morbidity or mortality in a favorable direction. An ongoing clinical trial will hopefully provide a definite answer to this question.

Sexually Transmitted Diseases

Compared to Whites, African Americans have substantially higher rates of gonococcal, syphilitic, and chlamydial infections in California. This is discussed further in the section on behavioral determinants of health.

Tuberculosis

Tuberculosis is curable in most patients and preventable with the appropriate use of medications. The HIV epidemic and the increased prevalence of multi-drug resistant tuberculosis in recent years has heightened concerns about this problem. African Americans and other minority groups are disproportionately affected by tuberculosis. In 1992, 70% of all tuberculosis cases and 86% of tuberculosis among children in the U.S. were reported among minorities. The CDC estimates that 85% of potentially preventable

cases of tuberculosis occur among minorities. Tuberculosis is of special concern among residents of correctional facilities where African Americans are disproportionately represented. Data from outbreaks in correctional facilities support the observation that African Americans are more susceptible to initial infection, but not to development of tuberculosis disease.

Asthma

Asthma is a prevalent disease in all racial/ethnic groups, and it is the principal chronic disease affecting children. Although precise prevalence data are not available, an estimated 21 million people nationally are either currently affected by asthma, or have been in the past. Data for California can be estimated from state specific analyses of national surveys (none are published) or indirectly from hospitalization rates or regional surveys. In all age groups, asthma is more prevalent in African Americans than in Whites. Data from the National Health and Nutrition Examination Surveys (NHANES I and II, 1971–1975 and 1976–1980, respectively) showed that among African Americans, 13.4% of children and 3.7% of adults were affected by asthma, compared to 9.7% and 2.7% of White children and adults. Race has been found to be an independent predictor of asthma in addition to low birth weight, young maternal age, living in the central city, and low family income. Hospitalization and mortality rates for asthma have increased in the past 15 years with rates remaining higher for African Americans compared to Whites. Risk of mortality from asthma appears to be an interplay of environmental factors, severity of disease, personal factors, and access to health care—all of which may be exacerbated in African Americans.

Arthritis

There is little racial/ethnic data on prevalence and severity of arthritic conditions in the U.S. Although systemic involvement of specific arthritic diagnoses (e.g., rheumatoid arthritis) may contribute to mortality, most of the impact of arthritis as a health condition is on patient functioning and well-being. Osteoarthritis is by far the most prevalent diagnosis of arthritis and it increases with age and is more prevalent in women. Studies of racial and ethnic comparisons of rates of symptomatic arthritis, effect on patient

functional well-being, and benefits of medication and nonpharmacological therapy are needed.

C. Birth Outcomes

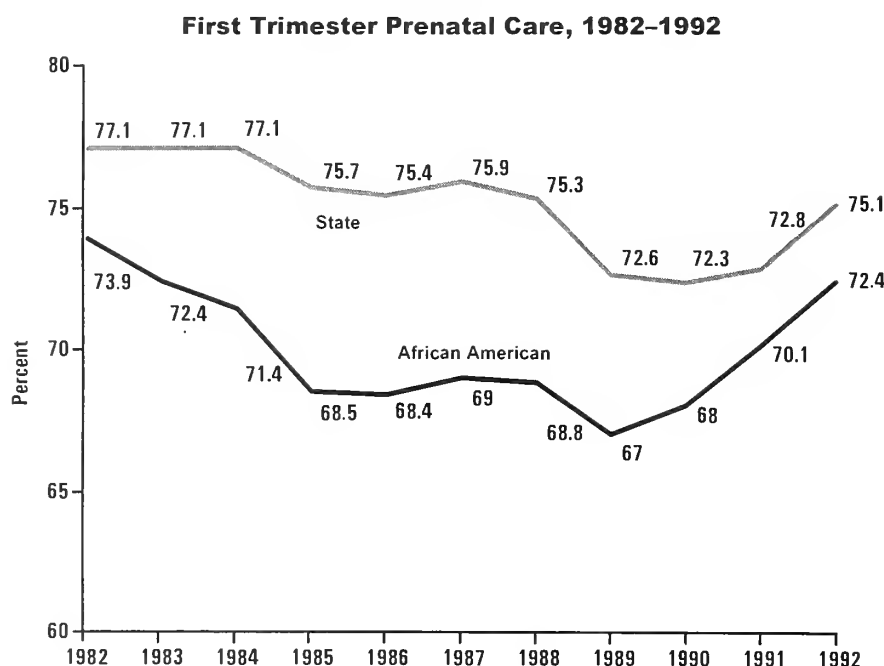
Live Births by Mother's Race/Ethnicity

In 1990, there were 611,666 live births in California (DOHS). The majority of those births were to White and Latina women, and approximately 8% (48,730) of those births were to African American women of all ages. Additionally, slightly more than 18% of the African American live births were to a mother who was 19 years of age or younger (DOHS, 1992).

Prenatal Care

Over the years 1982–1992, a lower percent of African American women have received prenatal care in the first trimester than the state average (Figure 7). This gap has been steadily closing since 1989. However, in 1992, African American women were less likely to have received prenatal care than in 1982 (72.4% vs. 73.9%, respectively).

Figure 9.



SOURCE: State of California, Department of Health Services, Death Records

Low Birth Weight

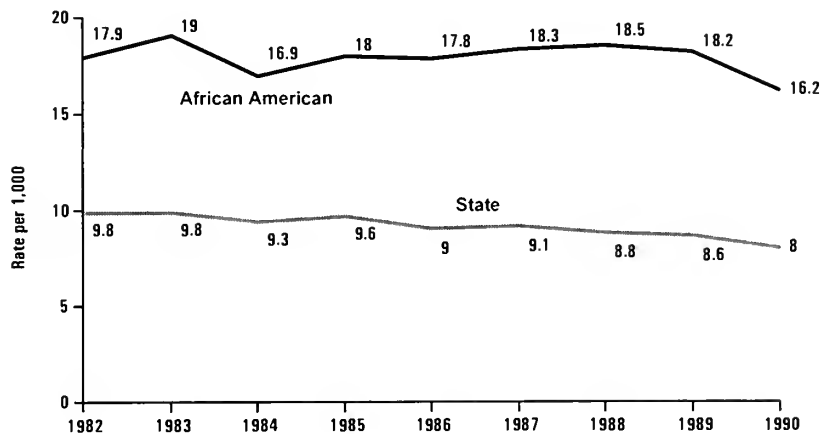
Birth weight is an indicator of a baby's ability to survive its first year of life. In 1990, the state average for low birth weight babies (less than 2500 grams) was 5.8% of all live births. Over 12% of African American live births were of low birth weight, more than twice the state's average and much higher than any other race/ethnicity. Additionally, almost 3% of live births to African American women were of very low birth weight (less than 1500 grams).

Infant Mortality

Infant deaths are those occurring under one-year of age and are caused by several factors. Over the years 1982–1990, the African American infant mortality rates were almost double that for the state each year. The major causes of death for African Americans less than one-year of age were certain perinatal conditions, sudden infant death syndrome (SIDS), and congenital anomalies (DOHS, 1992). The high infant mortality rate for African Americans can be partially explained by the lower percentage of women receiving prenatal care and the high number of low birth weight babies.

Figure 10.

Infant Mortality Rates, 1982–1990



SOURCE: State of California, Department of Health Services, Death Records

D. Other Key Problems

Unintended pregnancies, substance abuse, and childhood vaccinations have serious impacts on morbidity and mortality in the African American community. They are health issues that did not clearly arise in this section, but do impact many of the outcomes discussed earlier.

Unintended Pregnancies

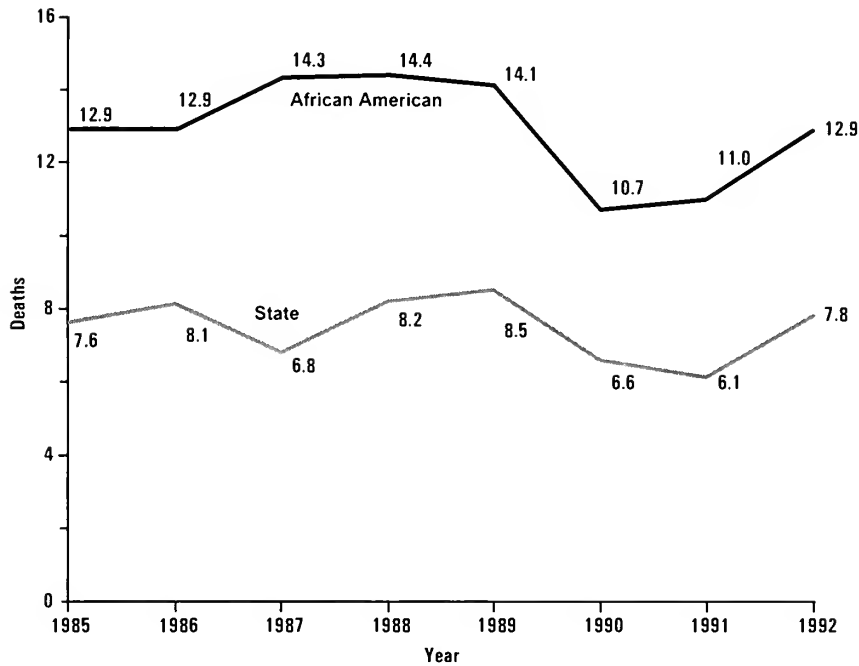
Recent studies have found that women who have unintended pregnancies are more likely to have poor birth outcomes such as premature delivery and low birth weight than women whose pregnancies were planned (Kost). In 1988, nearly half of the women surveyed reported that their pregnancies in the last five years had been mistimed or unwanted (DHHS). Further studies have found that the proportion of births that are mistimed or unwanted were highest among those aged 15–19 (teenagers), women who have never been married, and among African American women (Kost).

Teen pregnancies have medical, social, and economic impacts on the teenagers, their families, and society. It has been estimated that one million American teenagers became pregnant in 1990, and 95% of them were unintended (MMWR). In 1992, the teenage birth rate for African Americans in California was second only to Latinas (DOHS, 1992). But unlike Latinas, African Americans also have the poor birth outcomes associated with unintended and teenage pregnancies—high infant mortality rates and high incidence of low birth weight babies.

Substance Abuse

An estimated three million people in the United States had a serious drug problem in 1990 (ADAMHA). Substance abuse is an important issue for African Americans because it is a contributing factor for many infant deaths, suicides, homicides, motor vehicle injuries, HIV infections, pneumonia, and hepatitis (McGinnis). The proportion of drug-related deaths of African Americans in California has followed a trend similar to that for the state, but has remained well above the state's average since 1985.

Figure 11.

Drug-related and Age-adjusted Death Rates, 1985–1992

SOURCE: State of California, Department of Health Services, Health Information and Strategic Planning Center for Health Statistics, Planning and Data Analysis Section

In California, 300,000 individuals entered treatment from July 1994 through June 1995—approximately 60,000 (20%) were African Americans (California Office of Alcohol & Drug Programs). However, the number of people entering treatment cannot truly estimate the magnitude of the problem. Therefore, the California Office of Alcohol & Drug Programs further suggest that in 1991, approximately 22% of the African Americans in California had used some illicit drug (not including alcohol) in the past year (ibid).

Vaccinations for Children

The development and widespread use of vaccines has helped to reduce the incidence of infectious diseases. However, the childhood vaccine-preventable diseases remain problems among certain high-risk, under-immunized groups. A study on immunization status among Latino and African American preschoolers in Los Angeles found that at 24 months of age, 42% of Latino and 26% of African American children were up-to-date on immunizations (Wood). This study, along with others, also found that infants with

Medicaid or other governmental assistance had less adequate care versus those with private insurance (Wood, Mustin).

We did not find studies on immunizations that were state-specific, by race and disease. It would be a great area for further research to be developed and explored, especially when dealing with issues of access, adequacy of care, and reducing morbidity and mortality in African Americans.

E. Special Considerations

Accuracy of Data

There are limitations of vital statistics data that must be acknowledged. These limitations are generally related to the difficulties in reporting and classifying information. There exists the distinct possibility of underreporting of the denominator (the estimated population at risk) for African Americans (e.g., not including the homeless). Ordinarily an underestimate of the denominator leads to artificially inflated rates and ratios. Additionally, the numerator (the number of events reported) for African Americans may also be underreported.

As long as there are a limited number of categories for one to select a single race/ethnicity, there will be limitations in the accuracy of the data. This is especially true in the case of measuring birth outcomes based solely on the race of the mother. The implementation of this practice in 1989 has probably had an effect on the resulting rates/ratios related to birth outcomes, and it tends to cloud the issues around race/ethnicity for children with parents of different races.

3. Determinants of Health

A. Individual Behaviors

There are several adverse behavior patterns individuals may display that can be linked with the onset of diseases which can eventually lead to a premature death. Both risk behaviors and health promotion behaviors have been found to be impacted by one's race/ethnicity and income level (Sanders-Phillips). The behaviors that we have chosen to examine include smoking, diet and activity levels, alcohol/drug abuse, violence, sexual behavior, and seat belt use.

Smoking/Tobacco Use

Studies have shown that smoking and using other tobacco products is associated with deaths from cancer (e.g., lung, esophagus, larynx, cervix, and oral cavity), cardiovascular disease (e.g., stroke and high blood pressure), lung disease (chronic obstructive pulmonary disease), and low birth weight (McGinnis). Given the disparate impact of the aforementioned causes on the health status of African Americans in California, smoking is a major health issue.

The *California Behavioral Risk Factor Surveillance* study found that for African Americans, there was little difference in the proportion of males and females who were current smokers from 1984–1989 (25.4% vs. 25.7%, respectively). There was little difference in smoking prevalence between Whites and African Americans, regardless of gender. However, differences in cigarette smoking prevalence across ethnic groups does become an issue when dealing with adolescents. The *Monitoring the Future Survey* showed that youths aged 17 and 18 years were smoking in similar proportions in 1974, but in 1992, African American youths were smoking in much lower proportions than Whites (8.2% vs. 31.8%, respectively) (USDOHS, 1994).

Further studies have found that in general, African Americans start smoking at a later age and are less likely to quit than their White counterparts (MMWR, 1991). This difference in smoking prevalence implies that there are protective factors affecting African American youth that are not present among Latinos or Whites. Additionally, although there tend to be more African Americans who are current smokers, they smoke fewer cigarettes a day than Whites (Kabat). Over the past decade, advertising and promotion for smoking has targeted minority populations and probably contributed to today's statistics. However, the prevention efforts that have recently been enacted to combat such damage may be working for African Americans, as the number of smokers is decreasing at a faster rate than that for Whites (Fiore).

Diet and Activity Levels

Poor diet and exercise habits have multiple health effects. Diet has been linked with deaths from cardiovascular diseases (e.g., coronary artery disease, stroke, and high blood pressure), cancers (e.g., colon, breast, and prostate), and diabetes mellitus (McGinnis). Leading a sedentary lifestyle can increase one's risk of death for heart disease and colon cancer (ibid.). African Americans in California suffer disproportionately from all of these diseases, which make type of diet and level of activity so important.

The California Behavioral Risk Factor Surveillance study found that from 1984–1989, African Americans were more likely to be sedentary (no physical activity outside of work) than Whites (25.4% vs. 20.4%, respectively), but less likely than Latinos (31.9%). Furthermore, African American women were 1.5 times more likely than African American men not to exercise outside of work (30.7% vs. 19.6%, respectively). The surveillance study also looked at the likelihood of being overweight (body mass index of >27.8 for men and >27.3 for women). Being overweight can be a symptom of both poor diet and lack of exercise. African Americans, Latinos, and Whites had very similar prevalences of overweight (approximately 20%). However, African American women were 1.6 times more likely to be overweight than the men (25.2% vs. 15.5%, respectively).

Additional studies have found that there seems to be no significant association between beliefs about diet and disease risk, and the changes in dietary intake that African Americans may make (Armstrong). Furthermore, it has been found that African Americans may be less likely to perceive themselves as unhealthy, and therefore, probably less likely to change their diet and/or activity levels (Sanders-Phillips).

Alcohol/Drug Abuse

Alcohol and/or drug abuse have health, social, and economic consequences. Alcohol abuse has been associated with motor vehicle accidents (40–50% of them), alcoholic cirrhosis of the liver, homicides, suicides, and cerebrovascular diseases (Sutocky, McGinnis). In fact, one study found that 6.2% of all deaths to California residents in 1989 were alcohol related, making it one of the top ten leading causes of death (Sutocky). Drug abuse contributes to infant deaths and deaths reported for: overdose; suicide; homicide; motor vehicle injury; HIV infection; pneumonia; and hepatitis (McGinnis). Drug-related deaths of African Americans in California have remained significantly higher than the state's average from 1985–1992.

As mentioned earlier, it is estimated that in 1991 approximately 22% of the African Americans in California had used some illicit drug in the past year (California Office of Alcohol & Drug Programs). The *California Behavioral Risk Factor Surveillance* study found that from 1984–1989, 10.5% of African American men and 1.8% of the women report chronic drinking (60+ alcoholic beverages per month). This is less than that reported for Whites, and about the same as that for Latinos.

Additional research on the subject has found that, as with smoking, White youth are more likely to begin using alcohol and other drugs at a younger age, but African American and Latinos are overrepresented in the statistics indicating addiction or drug-related problems (Catalano). This is manifested in the findings that alcohol-related mortality rates in 1989 for African Americans in California were higher than any other race/ethnicity group for homicides, alcohol dependence, alcoholic liver damage, cancer of the esophagus, diabetes, and accidents caused by fires (Sutocky).

Violence

Violence has been identified as a serious health epidemic in the United States (CDC, 1991). Among youth 15–24 years of age, homicide, the intentional killing of one human being by another, ranks as the third leading cause of death in the U.S. (CDC, 1991). Among African American youth, violence is an even more critical problem. Violence is the most significant contributor to disproportionately high mortality rates among African American youth in inner-city communities (Earls). Homicide is the leading cause of death among both male and female African Americans, 15–24 years of age (CDC, 1991). Rates for younger black females are only slightly lower. Each year, almost a half million African Americans suffer nonfatal injuries from violent and abusive behavior, and most are under the age of 30 (Houk).

There has been little research on the radiating effects of violence on health status other than mental health consequences of witnessing violence. Violence is a major source of stress in many inner-city communities and may have serious consequences for individuals with chronic disease or health problems such as hypertension, heart disease, CHF and diabetes. Additionally, a violent environment may present additional difficulty to individuals who need to access health care.

Violence is a serious health problem for African Americans in the state of California. Although African Americans make up just 7% of the state population, they incurred 13% of the fatal injuries statewide. African Americans had a dramatically higher rate of mortality from injuries than the rest of the state's population. African Americans had a mortality rate from injuries of 103.0, compared to the statewide rate of 56.0 (DOHS, 1984). This disparity is due primarily to a higher rate of injury resulting from violence among the African American population. The homicide rate for African Americans in California was 54.0, compared to 19.0 for Latinos, 8.0 for Asians, and 6.0 for Whites (per 100,000 state population) (DOHS, 1984). Homicide is the leading cause of death from injury for African American males age 13–70, and is highest among youth age 16–20. Among African American females, homicide is the leading cause of death for women age 16–40 (DOHS, 1984).

Violence is also significant cause of morbidity among California's African American population. African Americans are at higher risk for being hospitalized for injuries with a rate of 933.0 (per 100,000 state population) in 1991 compared to Whites (848.0), Latinos (555.0), and Asian/Others (363.0) (DOHS, 1984). The third leading cause of hospitalized injury in the state was assault (overall rate of 75.0), but it was the leading cause of hospitalization due to injury among African Americans with a rate of 298.0—four times the overall rate. Violence is the leading cause of hospitalizations due to injury among African American males age 13–50. Among African American females, assault is the leading cause of hospitalization due to injury for ages 16–40, and second to suicide for those age 13–20 (DOHS, 1984).

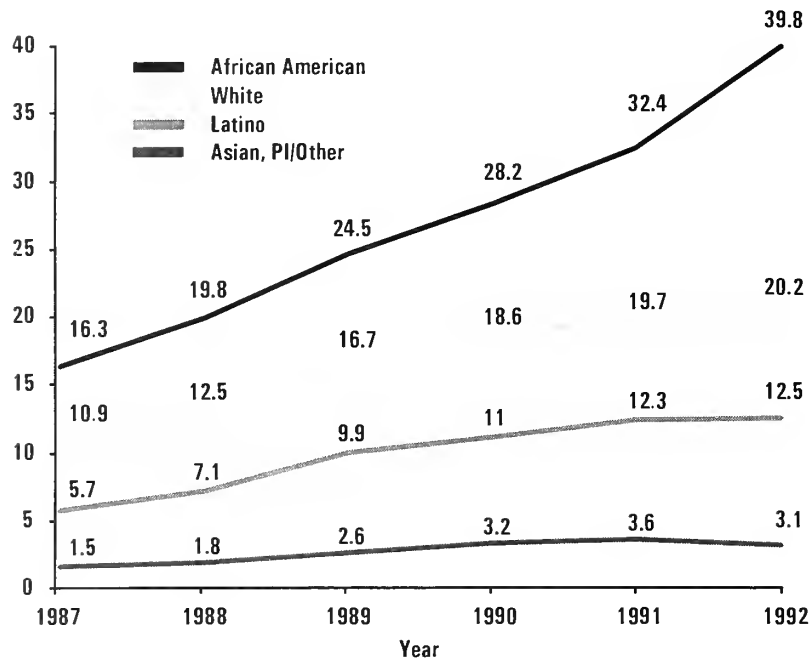
The actual number of injuries due to violence is significantly higher than those indicated from hospital discharge data and death records. These do not include those treated and released from emergency rooms or those individuals who were injured but did not seek care. This is particularly a problem among the uninsured and those who fear the criminal justice system.

Youth who live in inner-city communities face the greatest risk of becoming a victim of violence. Levels of violence are higher in urban areas than suburban or rural areas, and they are highest in poor inner-city African American and Latino communities (NRC). Homicide risks for youth are substantially increased if they reside in high-risk neighborhoods, use or sell drugs, are high school drop-outs, engage in criminal behavior, or are unemployed.

Sexual Behavior

Adverse sexual behavior can have several impacts on one's health and is becoming a huge social challenge. Sexual behavior is associated with an increased risk for preventable disease and disability (e.g., pelvic inflammatory disease, syphilis, gonorrhea and chlamydia), and deaths (e.g., infant mortality, cervical cancer, hepatitis B, and HIV/AIDS) (McGinnis).

Figure 12.

HIV/AIDS Deaths and Age-adjusted Death Rates, 1987–1992

SOURCE: State of California, Department of Health Services, Health Information and Strategic Planning Center for Health Statistics, Planning and Data Analysis Section

The age at which individuals are beginning to engage in sexual activities is decreasing. In 1991, almost 18% of White males, 49% of African American males, 5% of White females, and 12% of African American females in the U.S. were sexually active before age 13 (Coker). Generally, when sexual activity starts this early, it allows for a greater number of partners in a lifetime and oftentimes appropriate forms of contraception are not used.

According to a 1992 survey, the pill, the condom, vasectomy, and female sterilization were rated as the most preferred methods of contraception according to women age 15–44 (Forrest, 1993). The level of contraceptive use at first intercourse among teenage women improved from 48% to 65% between 1982 and 1988 (Forrest, 1990). One study found that African American women under the age of 20 were more likely than women in other age groups to use condoms, but despite knowledge of sexually transmitted

diseases and HIV, condom use was not consistent (Geringer). Additionally, it has been found that those that initiate sexual activity at very young ages (<13), were 50% less likely to use condoms regularly and were two to seven times more likely to have been pregnant or caused a pregnancy (Coker).

Non-use or improper use of contraceptives, early initiation of sex, and frequent sex with multiple partners results in high numbers of unintended pregnancies and sexually transmittable diseases that can have serious and sometimes fatal health consequences. As discussed earlier, unintended pregnancies are having an impact on the medical, social, and economic well-being of African Americans. With the rise of sexually transmitted diseases, pregnancy may no longer be the most serious result of unprotected sex. In California, African Americans have had the highest rates of incidence of syphilis and gonorrhea from 1985–1992, but their rates have been decreasing since 1987. The deaths caused by HIV/AIDS in California have been highest for African Americans since 1987 and AIDS has become one of the top ten leading causes of death for African Americans in the state. In fact, in the U.S., African Americans comprise 57% of the AIDS cases among women, 50% of all AIDS cases among injection drug users, and 62% of all children with AIDS (CDC, 1994).

Seat Belt Use

The chances of surviving a serious motor vehicle accident are greatly increased by the proper use of seat belts. Lap and shoulder belts have been shown to reduce the risk of death by about 45%–65%, and of serious injury by about 40%–55% (McGinnis). The motor vehicle death rate in California was 13.6/100,000 in 1992, and approximately half of those were probably attributable to alcohol or drug use. Many of the deaths could have possibly been prevented with the proper use of seat belts, motorcycle helmets, and/or child car seats.

The *California Behavioral Risk Factor Surveillance* study found that from the enactment of the Mandatory Seat Belt Law in 1986 until 1989, African Americans and Latinos were more likely than Whites to be infrequent/nonusers of seat belts (26.4% and 22.8% vs. 17.1%, respectively). African American men were approximately 1.5 times more likely than the women to be infrequent/nonusers of seat belts.

An additional study on seat belt use found that an individual's belief in destiny was an important factor in how regularly he/she "buckled up" (Colon). This study developed the notion that if one believed that their death was divinely decreed, then he/she would be less likely to take active steps to prevent such a death (like wearing a seat belt). They found that African Americans and Puerto Ricans were more fatalistic and therefore less likely to use seat belts.

B. Provider/System Access

Measures of Access

There is no single "gold-standard" measure of access to care, but rather several indicators have been used to assess the adequacy of access to care or whether barriers exist. These indicators include the supply of providers in an area, the availability of financial resources such as health insurance to purchase services, the organization of patients with specific providers, rates of medical care utilization, and health status.

Access to care is best assessed at the population level rather than just among those who are receiving care, since access barriers are often the reason that certain individuals do not receive regular medical care. Some information on the structural components of access is available through secondary databases. Physician practice location is contained within the American Medical Association (AMA) Physician Masterfile. This is the most comprehensive list of all U.S. practicing physicians, not just AMA members. California's Office of Statewide Health Planning and Development (OSHPD) maintains an annual survey of the state's licensed clinics. Information on many other key descriptors of access, such as whether an individual has a regular provider of care, is not contained in electronic databases, but is only available from surveys of individuals. Because of the great expense involved in gathering this data from individuals in the population, there is little updated information on access to care for the nation, a state, or a community.

To better understand access barriers to care for adults in California, researchers at University of California, San Francisco's (UCSF) Primary Care Research Center in 1993 analyzed the supply of physicians and clinics in California communities and conducted a population-based random sample telephone survey of more than 7,000 adults age 18–64 living in the state. Communities were defined using zip codes. In conjunction with

OSHPD, researchers at UCSF combined all of California's zip codes into clusters which correspond to neighborhoods. The median population in these areas was 52,000 in 1990. The results summarized below provide an understanding of the differences in access to medical care among African American, Asian, Latino, and White Californians.

Availability of Physicians and Clinics

- Physician supply is much more strongly associated with the proportion of African American and Latino residents in a community than with a community's level of income.
- Communities that are poverty areas but neither high African American nor high Latino have 70% more total physicians per capita compared with poverty areas with high proportions of either African American or Latino residents.
- Even among rural areas, which have 40% fewer physicians overall, physician supply is lowest in high-minority areas, with the result that most rural areas with high proportions of African American or Latino residents are physician shortage areas (fewer than 30 primary care physicians per 100,000 population, U.S. Public Health Service).
- The number of clinic visits per capita in both urban and rural areas varies mainly according to community income characteristics rather than according to racial and ethnic composition. However, African American communities have fewer clinics and clinic visits per capita than other communities.

Table 6.

Physician and Clinic Supply in California

	# Areas	Mean # Primary Care MD's/100,000	Mean # MD's/100,000	Primary Care MD's as % of Total MD's	% Physician Shortage Areas	% of Areas with 1 or More Clinics	Mean # of Clinic Visits per Capita
All Zip Code Clusters	394	58.4	134.3	53.0	28.7	61.2	0.30
All Urban Zip Code Clusters	250	67.7	169.3	47.0	20.8	60.8	0.22
All Rural Zip Code Clusters	144	42.4	73.5	64.0	42.4	61.8	0.44
Urban Zip Code Clusters							
<i>Low Income</i>							
High A A & High Latino	7	23.9	53.8	44.4	57.1	57.1	0.35
High A A & not High Latino	23	42.8	104.8	40.8	43.5	78.3	0.57
High Latino, not High African American	13	44.2	100.5	51.9	46.2	69.2	0.42
Neither High AA nor High Latino	24	69.1	171.0	49.5	12.5	66.7	0.45
<i>Not Low Income</i>							
High A A*	24	54.4	126.0	51.8	41.7	54.2	0.09
High Latino, not High A A	14	40.5	82.0	55.1	28.6	92.9	0.29
Neither High Latino nor High A A	145	80.4	206.5	44.8	10.3	54.5	0.11
Rural Zip Code Clusters							
<i>Low income</i>							
High A A*	3	9.4	18.4	52.5	100.0	33.3	0.31
High Latino, not High A A	17	17.8	24.4	73.5	82.4	82.4	0.73
Neither High Latino nor High A A	55	46.0	76.6	67.1	40.0	72.7	0.54
<i>Not High Income</i>							
High A A*	3	12.1	14.8	83.3	100.0	0.0	0.00
High Latino, not High A A	5	32.5	38.7	90.3	60.0	80.0	0.29
Neither High Latino nor High A A	61	49.9	92.9	56.7	26.2	49.2	0.31

* The relatively small number of zip code clusters in the high African American category in these strata do not permit distinguishing these areas according to high vs. not high Latino status.

Source: Bindman et al. JGIM (in press)

Health Insurance

- 19% of Californians age 18–64 are uninsured. 14% of African Americans and 37% of Latinos are uninsured compared to 12.5% of the White population.
- 5% of Californians age 18–64 have Medi-Cal. 9% of African Americans and 10% of Latinos have Medi-Cal compared to 3% of the White population.
- 26% of Californians age 18–64 were uninsured for some period of time in the previous 12 months. 45% of Latinos and 21% of African Americans age 18–64 were without health insurance for some period of time in the previous 12 months.
- Twice as many African Americans than Whites have unpaid medical bills.
- 13% of Californians age 18–64, including 16% of Latinos and 16% of African Americans, have financial problems due to their health.

Table 7.

Race/Ethnicity and Insurance Status, Age 18–64

	African Americans (n=601)	Asians (n=246)	Latinos (n=1962)	Whites (n=4437)	Total (n=7246)
Insurance %					
None	14.1	8.1	36.8	12.5	19.1
Medi-Cal	9.3	3.7	10.2	2.7	5.3
Other	76.5	88.2	53.1	84.8	75.6
Uninsured at sometime in past year %	21.0	13.9	44.9	19.2	26.1
Unpaid medical bills %	16.3	4.1	12.1	8.1	9.7
Financial problems due to health %	16.1	6.9	15.9	12.0	12.9

Source: Bindman et al. JGIM (in press)

Regular Source of Care

- 85% of Californians age 18–64 have a regular place for medical care. Although African Americans (90%) and Whites (91%) do not differ in the percentage reporting a regular place for care, there were major differences in where each group received its regular care.
- 7% of African Americans age 18–64 report that an emergency room is their regular place for care compared with 3% of similar age Whites.
- 31% of African Americans age 18–64 reported that a clinic is their regular place for care compared with 20% of similar age Whites.
- Only 52% of African Americans age 18–64 report having a regular doctor at their regular place for care compared with 64% of similar age Whites.
- Among Californians with a regular source of care, African Americans age 18–64 wait an average of 3.7 days for an urgent medical care visit compared with 2.4 days for similar age Whites. Similar age Latinos wait 5.2 days on average for an urgent care visit.
- After-hours telephone medical advice is more available to Whites than to African Americans or Latinos.

Table 8.

Race/Ethnicity and Regular Source of Care

	African Americans (n=601)	Asians (n=246)	Latinos (n=1962)	Whites (n=4437)	Total (n=7246)
Regular source of care %					
None	9.7	9.4	30.5	9.4	15.1
Office	53.1	66.1	33.5	67.6	57.1
Clinic	30.6	23.3	31.6	19.9	24.1
Emergency room	6.7	1.2	4.4	3.1	3.7
Regular doctor for ongoing care %	52.4	58.7	37.4	64.4	55.9
Mean # of days for an appointment %	3.7	3.2	5.2	2.4	3.2
Telephone medical advice after hours %	65.6	60.1	34.9	70.6	59.6

Source: Bindman et al. JGIM (in press)

Use of Services

- 42% of Californians age 18–64 had an outpatient medical visit in the prior three months.
- Among those age 18–64, African Americans had 8% fewer and Latinos 41% fewer outpatient visits in the prior three months than Whites.
- The average number of outpatient visits among all Californians age 18–64 was 1.1. African Americans averaged 1.1 visits and Latinos 0.7 visits in the prior three months.
- 10.5% of African American age 18–64 report that it is extremely or very difficult to get needed medical care compared with 6.5% of similar age Whites.
- More African Americans and Latinos age 18–64 than similar age Whites report that they had delayed medical care or delayed buying medication.
- Among women age 18–64 African Americans and Whites have similar rates of receiving Pap smears and mammograms. However, Latina women received significantly fewer of these screening tests.

Table 9.

Race/Ethnicity and Use of Medical Services, Age 18–64

	African Americans (n=601)	Asian (n=246)	Latinos (n=1962)	Whites (n=4437)	Total (n=7246)
Any outpatient visit in last 3 months %	43.9	45.7	28.2	47.6	42.0
Any outpatient visit in last 3 months for those with ongoing need for medical care %	73.9	81.8	59.1	73.9	
Needed medical care %	10.5	5.0	14.3	6.5	8.9
Delayed medical care %	34.1	39.4	39.1	31.3	33.9
Delayed buying medicine %	16.1	6.9	15.9	12.0	
Women with Pap smear in last 2 yrs. %	86.4	73.9	63.2	82.8	77.5
Women >50 with mammogram in last 2 years %	71.6	75.0	59.3	75.3	72.9

Source: Bindman et al. JGIM (in press)

Health Status

- Among Californians age 18–64, 38% of Whites describe their health as excellent compared with only 24% of African Americans and 18% of Latinos.
- 16% of African Americans and 23% of Latinos age 18–64 describe their health as fair or poor compared with only 7% of similar age Whites.

Table 10.

Race/Ethnicity and Health Status, Age 18–64

	African Americans (n=601)	Asians (n=246)	Latinos (n=1962)	Whites (n=4437)	Total (n=7246)
Excellent health %	23.8	27.2	17.9	37.7	30.9
Fair/poor health %	15.5	6.1	22.6	6.6	11.6

Source: Bindman et al. JGIM (in press)

Summary

These results highlight systematic differences in the access to care experienced by different racial and ethnic groups in California. In general, individuals who are African American or Latino are in worse health and experience worse access to care than those who are Asian or White. Our results pertaining to Asians are limited by the fact that the survey was conducted only in English or Spanish. It is quite possible that non-English speaking Asians experience greater barriers to access than we measured in this survey.

4. Key Issues, Challenges, and Recommendations

A. Overview

We recommend that new efforts to improve the health status of African Americans in California stress five core goals broadly directed to key health care decisions-makers, leaders in the African American community, and to African Americans.

Goal 1. Establish a united effort involving key health care decision-makers to provide ongoing assessment and improvement of the health status of African American communities.

Goal 2. Improve data related to the health status of African Americans and use it more effectively.

Goal 3. Stimulate and conduct research to identify the best strategies for preventing or modifying adverse health behavior.

Goal 4. Increase access and explore further the contribution of access barriers to health outcomes.

Goal 5. Develop and evaluate a variety of local programs to promote health and prevent disease in African Americans.

Goal 1. Establish a united effort involving key health care decision-makers to provide ongoing assessment and improvement of the health status of African American communities.

This document describes large inequities in the delivery of health care services and health outcomes for African Americans in California. These inequities can only be corrected if those who are capable of providing solutions first develop a mechanism to accept group responsibility and a common set of goals. Unfortunately, many forces in the marketplace are creating opportunities for those who organize and deliver health care services to focus on only one segment of the population without much consideration of the impact it might be having on others. In some cases, academics and public health officials are attempting to provide an overview of the degree to which health care overall is achieving population health goals. However, as this report documents, the current strategy of segmented health care delivery is failing California's African American population.

The challenge then is to organize all the responsible groups so that a partnership can be formed to work towards the intended goal—improved public health. To build a truly cohesive body that can improve health care delivery and health outcomes for California's African American population, several steps must be taken:

- Key groups committed to promoting health and preventing disease must jointly accept responsibility and participate in forming and carrying out solutions. These groups include, but are not limited to purchasers of health care (employers); payors (health insurance and managed care organizations); local, state, and federal public health officials; research evaluation experts; and representatives from community groups.
- Responsible parties need to convene and establish group goals, a means to work together, and a set of priorities.
- Resources need to be committed to overcome the inertia that keeps groups from working together and facilitate the process outlined above.
- In completing this process, data will inevitably be required to assess problems and to evaluate the success of strategies that are proposed as solutions. Some solutions may

be reached more rapidly by an infusion of new resources. Ultimately, many of the groups goals, such as lowering community smoking rates can be cost-effective for all participating parties, and may therefore require little if any additional outside investment.

Goal 2. Improve data related to the health status of African Americans and use it more effectively.

With the evolving demographic profile of California's population, there is an increasing need to ascertain appropriate and valid race/ethnic information. The collection, analysis, and application of data needs to be improved for better decision-making. Policy decision-makers and health care service providers have faced tough questions regarding use of limited resources for new programs with a dearth of information specific to African Americans. Moreover, clinical researchers have been confronted with the dilemma of conducting well-designed and valid studies on diverse populations with limited information.

Data issues in African American populations are confounded by census undercounting, large homeless populations, and the underreporting of disease. If minority communities are not being represented in the data that exist, their needs are not, and cannot be on the forefront for policy issues and decision-making. We recommend several steps for improving the information and data that currently exist. They include the following:

- *Maximize Existing Data.* There are data sources available that are not being fully utilized or have limited/no access. These sources include: state vital statistics and census data; state hospital discharge data; health maintenance organizations (HMOs); neighborhood/community clinics and providers; state registries (cancer, diabetes, etc.); and state and federally funded studies that have produced outcome-specific data sets.
- *Improve Weak Data Sources.* Once weaknesses in existing data are discovered, methods might be used/developed to enhance them. Some examples and suggestions are: if there are multiple data sets available, each with limited data, “linking” techniques might be used to create a valuable data source; and conduct meta-analyses for outcomes in African American populations.

- *Collect New Data.* Data that are available are not always sufficient. New methods and adapting existing methods for collecting new data need to be developed. Furthermore, additional information is needed to identify risk factors for the development of a range of health outcomes in African Americans. Useful new data and collection systems might include: emergency room surveillance; sentinel health events for African Americans (conditions such as hypertension and diabetes can alert providers and researchers to potentially life-threatening outcomes); and standardized/automated data systems to make dissemination of data from agencies and other sources easier.
- *Develop New Methods.* The methods for both collecting primary and secondary data and assuring its validity should be improved. Suggestions for improving data that directly impacts African Americans include: *Identification of race/ethnicity:* develop a standard methodology that more accurately identifies race/ethnicity that captures the richness of diverse populations, yet is not overwhelmingly burdensome to administer/collect; *Evaluating social class:* gather specific information about social class in order to delineate the effects of race/ethnicity and social class on health outcomes (e.g., assets and/or social capital); *Measuring Racism:* many of the health beliefs of patients and providers are based on myths and racism. Perceived racism by the patient receiving care from an institution may affect functional well-being and influence medical decisions (e.g., whether or not to seek care).
- *Standardizing Data.* By increasing the versatility and flexibility of the unit of analysis, data can be easily shared between entities. For example, zip codes are currently used in some databases, while census tracts are used in others. Eventually a mechanism for standardizing data by unit of analysis should be developed to make comparisons easier.
- *Interpreting Data.* Once the proper data have been collected and analyzed, the findings must be explained. For this to happen, we suggest the following: training people to use correct data/new data; ensuring the “why” in the original question is really being measured; teasing out what’s really responsible for race/ethnic differences (what’s driving the findings); and using data effectively to facilitate the development of programs based on the differences.

Goal 3. Stimulate and conduct research to identify the best strategies for preventing or modifying adverse health behavior.

Approaches to modifying adverse health behavior should emphasize the underlying social conditions which place individuals at-risk for behaviors adverse to their health, in addition to addressing a specific behavior. Examples of strategies or programs to attenuate some of the root factors and reduce adverse consequences are: (a) making education meaningful to reduce drop-out rates; (b) encouraging self-efficacy for being able to reach goals (and have reachable goals); (c) providing jobs and promoting jobs as a goal as well as for experience; (d) creating and/or supporting programs that improve self-esteem and provide social support; and (e) creating and/or supporting mentoring programs that serve as sources of advice and guidance related to education, employment, and healthy behavior.

For specific behaviors and outcomes, several examples of potentially effective interventions or programs are outlined below. These may be aimed at the individual or the population/community.

- *Sexual Behavior.* Consequences of unsafe, unprotected sex would include unintended pregnancies, HIV/AIDS, and other STDs. Intervention models to help curb the number of unintended pregnancies could include: providing teens with better information about risky behavior (e.g., better sex education in the schools); providing easier access to a variety of forms of contraception; emphasizing the importance of contraception as a means to prevent pregnancy and disease; and creating comprehensive and anonymous advisory and family planning services.

Intervention models to prevent the further spread of HIV/AIDS and other STDs could include: incorporating the cultural aspects of sexuality and drug use in program planning; using materials that depict African Americans and that address issues using their own words; and addressing the obstacles to prevention in the African American community (e.g., distrust of public health officials and other government vehicles, homophobia in the community).

- *Violence.* Intervention models to reduce the levels of violence could include: restricting access to instruments or agents of injury through firearms restrictions and regulations; providing safe places for youth (e.g., schools and youth programs); and

improving the ability of at-risk individuals to avoid violence with: youth rites of passage programs, conflict resolution training, parenting classes, social supports, screening for exposure to violence (domestic violence and/or child abuse), and counseling and treatment for effects of exposure to violence.

- *Nutrition/Exercise.* Intervention models for improving the diet and exercise of the African American community could include: developing programs that address the African American's perception of "unhealthy" as opposed to using the White standard; creating cookbooks, possibly using a church forum, that contain dishes that African Americans enjoy, but are prepared in a healthy fashion; encouraging individuals to continue with the healthy behaviors they may already have; and providing access to healthy foods in the African American community.
- *Smoking.* Intervention models for decreasing the number of African American smokers could include: targeting African Americans at a slightly older age since they tend to start smoking later in life; creating programs that engage the family, community, and peer group to act as protective agents in preventing initiation; and addressing cultural factors influencing smoking in program development.
- *Education.* While education may not be a behavior directly connected to health, it is correlated to many health indices. Intervention models for lowering the drop-out rate and increasing the number of African Americans that pursue higher education might include: creating programs that address the issues of "Black English" on student performance; addressing the barriers to a good education (e.g., zoning/districting issues, parent involvement, and violence); and creating programs that involve the public and private sector in securing scholarships for those who desire, but cannot afford to attend college.

Goal 4. Increase access and explore further the contribution of access barriers to health outcomes.

Access to health care is potentially a powerful enabler in improving the health status of African Americans, but questions must be addressed to more clearly understand its role. Several of these questions requiring closer examination are outlined below. The questions relate to general issues about access, as well as specific issues for African Americans and will include:

- What are the most important components of access to care—health insurance? a regular place for care? a regular doctor?
- How do differences in access to care among racial and ethnic groups change over time? Are these differences widening or narrowing in response to changes in the health care marketplace?
- What is the importance of the access barriers faced by African American populations? Are African Americans who are most in need of care receiving it?
- Do differences in measured access to care or utilization across ethnic and racial groups reflect underutilization for one group such as African Americans, or possibly overuse of unnecessary care for another group such as Whites? In part, to answer this question of whether ethnic and racial groups are receiving appropriate access to care, a better method for assessing who truly needs medical care must be developed.
- Would the health status of African American populations improve if their access to care was on par with the White population?
- The issue of access barriers is only relevant to the extent that access to care influences health outcomes, so a better understanding of the relationship between access to care and health outcomes is needed. Limited studies to date suggest that improving access to care does improve the health of the underserved, but this has not been assessed at the statewide level.

Goal 5. Develop and evaluate a variety of local programs to promote health and prevent disease in African Americans.

Developing a program involves using the explanations regarding “why” differences and/or conditions exist to create interventions. In general, programs should be developed that address both the behavior and the environment, should utilize existing services, and should use the media (e.g., radio and television) to make people aware of the program and to get involved. While interventions should be specific to, and appropriate for, the given behavior or condition, there are several important elements to consider for interventions to work in the African American community. These include: incorporating cultural beliefs; using appropriate language; incorporating religious themes and church involvement; addressing the issues of racism; and giving consideration to the notion of acculturation.

References

- Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). Drug Abuse and Drug Abuse Research: The Third Triennial Report to Congress from the Secretary, Department of Health and Human Services. Washington, D.C.: U.S. Department of Health and Human Services, 1991.
- Armstrong JE and Larson B. Dietary Practices and Concerns of Adult Urban Black Men of High Socioeconomic Status. *Journal of the American Dietetic Association*. 1990, 90(12): 1716–1717.
- Bindman AB, Grumbach K, Osmond D, et al. Primary Care and Receipt of Preventive Services. *Journal of General Internal Medicine* (in press).
- Bindman AB, Grumbach K, Osmond D, et al. Preventable Hospitalizations and Access to Health Care. *Journal of the American Medical Association*. 1995, 274: 305–311.
- California Department of Health Services. EPIC Proportions: Injuries in California, 1991. Emergency Preparedness and Injury Control Branch, California Department of Health Services, 1994.
- Catalano RF, Hawkins JD, Krenz C, et al. Using Research to Guide Culturally Appropriate Drug Abuse Prevention. *Journal of Consulting and Clinical Psychology*. 1993, 61(5): 804–811.
- Center for Continuing Study of the California Economy (CCSCE). California Population Characteristics. Palo Alto, CA: Center for Continuing Study of the California Economy, 1995.
- Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report. 1994, 6: 1–39.
- Centers for Disease Control. Homicide surveillance: High-risk racial and ethnic groups—blacks and Hispanics, 1973 to 1983. Centers for Disease Control, Atlanta, 1991.
- Coker AL, Richter DL, Valois RF, et al. Correlates and Consequences of Early Initiation of Sexual Intercourse. *Journal of School Health*. 1994, 64(9): 372–7.
- Colon I. Race, Belief in Destiny, and Seat Belt Usage: A Pilot Study. *American Journal of Public Health*. 1992, 82: 875–877.
- Cowie CC, Port FK, Wolfe R, et al. Disparities in Incidence of Diabetic End-Stage Renal Disease According to Race and Type of Diabetes. *New England Journal of Medicine*, 1989, 321: 1074–1079.
- Earls, Felton. Not fear, nor quarantine, but science: Preparation for a decade of research to advance knowledge about the causes and control of violence in youths. *Journal of Adolescent Health*. 1991, 12:619–629.
- Fiore MC, Novotny TE, Pierce JP, et al. Trends in Cigarette Smoking in the United States: The Changing Influence of Gender and Race. *Journal of the American Medical Association*. 1989, 261: 49–55.
- Foote C. The Prison Population Explosion: California's rogue elephant. San Francisco: Center on Juvenile and Criminal Justice, 1993.
- Forrest JD and Fordyce RR. Women's Contraceptive Attitudes and Use in 1992. *Family Planning Perspectives*. 1993, 25(4): 175–179.
- Forrest JD and Singh S. The Sexual and Reproductive Behavior of American Women, 1982–1988. *Family Planning Perspectives*. 1990, 22(5): 206–14.
- Fry S and Schiraldi V. Young African American Men and the Criminal Justice System in California. San Francisco: Center on Juvenile Justice, 1990.

- Geringer WM, Marks S, Allen WJ, Armstrong KA. Knowledge, Attitudes, and Behavior Related to Condom Use and STDs in a High Risk Population. *The Journal of Sex Research*. 30(1): 75–83.
- Hiller R, Kahn H. Blindness from Glaucoma. *American Journal of Ophthalmology*. 1975, 80: 62–69.
- Houk, Vernon and Warren, Rueben. Foreward to the Proceedings of the Forum on Youth Violence in Minority Community: Setting the Agenda for Prevention, Public Health Reports. 1991, 106(3).
- Igra A, Stavig GR, Leonard AR. Hypertension and related health problems in California: results from the 1979 California hypertension survey. California Department of Health Services: Sacramento, 1979.
- Joint National Committee on Detection Evaluation and Treatment of High Blood Pressure (JNC). The Fifth Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure (JNC V). *Archives of Internal Medicine*. 1993, 153:154–183.
- Jones NR. For Black Males and American Society-the Unbalanced Scales of Justice: a costly disconnect. *Capital University Law Review*. 1994, 23.
- Kabat GC, Morabia A, Wynder EL. Comparison of Smoking Habits of Blacks and Whites in a Case-Control Study. *American Journal of Public Health*. 1991, 81: 1483–1486.
- Kittner SJ, White LR, Losonczy KG, et al. Black-White Differences in Stroke Incidence in a national Sample. The contribution of hypertension and diabetes mellitus. *Journal of the American Medical Association*. 1990, 264: 1267–1270.
- Kost K and Forrest J. Intention Status of U.S. Births in 1988: Differences by Mother's Socioeconomic and Demographic Characteristics. *Family Planning Perspectives*. 1995, 27(1): 11–17.
- Landrine H and Klonoff E. The African American Acculturation Scale: Development, Reliability, and Validity. *Journal of Black Psychology*. 1994, 20(2): 104–127.
- Leonard AR, Igra A, Felten PG. California's approach to hypertension control: an overview. *Western Journal of Medicine*. 1983, 139:388–394.
- Massey DS and Denton NA. *American Apartheid: segregation and the making of the underclass*. Harvard University Press, 1993
- Mauer M and Huling T. *Young Black Americans and the Criminal Justice System: five years later*. Washington, D.C.: The Sentencing Project, 1995.
- McGinnis JM and Foege W. Actual Causes of Death in the United States. *Journal of the American Medical Association*. 1993, 270(18): 2207–2212.
- Most RS, Sinnock P. The Epidemiology of Lower Extremity Amputations in Diabetic Individuals. *Diabetes Care*. 1983, 6: 87–91.
- Mustin HD, Holt VL, Connell FA. Adequacy of Well-Child Care and Immunizations in U.S. Infants Born in 1988. *Journal of the American Medical Association*. 1994, 272: 1111–1115.
- National Center for Health Statistics (NCHS). *Health, United States, 1994*. Hyattsville, Maryland: Public Health Service. 1995.
- National Cancer Institute (NCI). *Cancer Among Blacks and Other Minorities: statistical profiles*. In: U.S. Department of Health and Human Services, Public Health Service; NIH Publication No. 86–2785, 1986.
- National Research Council (NRC). *Understanding and Preventing Violence*. Washington, D.C.: National Academy Press, 1993.
- Otten MW, Teutsch SM, Williamson DF, Marks JS. The Effect of Known Risk Factors on the Excess Mortality of Black Adults in the United States. *Journal of the American Medical Association*. 1990, 263: 845–850.

- Sanders-Phillips K. Health Promotion Behavior in Low Income Black and Latino Women. *Women and Health*. 1994, 21(2/3): 71–83.
- State of California Office of Alcohol and Drug Programs. Personal communication, 1996.
- State of California, Department of Corrections, 1995.
- State of California, Department of Education, 1995.
- State of California, Department of Finance. 1993 Population Estimates for California Counties.
- State of California, Department of Health Services, Death Records.
- State of California, Department of Health Services. Advance Report: California Vital Statistics, 1993.
- State of California, Department of Health Services. Vital Statistics of California, 1992.
- State of California, Health and Welfare Agency. Behavioral Risk Factor Surveillance in California, 1984–1989.
- Stead WW, Senner JW, Reddick WT, Lofgren JP. Racial differences in susceptibility to infection by *Mycobacterium tuberculosis*. *New England Journal of Medicine*, 1990, 322(7): 422–427.
- Sytkowski PA, Kannel WB, D'Agostino RB. Changes in risk factors and the decline in mortality from cardiovascular disease: The Framingham Heart Study. *New England Journal of Medicine*, 1990, 322(23):1635–1641.
- Supreme Court of the United States. *State of Wisconsin v. City of New York, et al.* October 1995, consolidating with Nos. 94–1614, 94–1631 and 94–1985.
- Sutocky JW, Shultz JM, Kizer KW. Alcohol-Related Mortality in California, 1980 to 1989. *American Journal of Public Health*. 1993, 83: 817–823.
- Tielsch JM, Sommer A, Katz J, et al. Racial Variations in the Prevalence of Primary Open-Angle Glaucoma. *Journal of the American Medical Association*. 1991, 266: 369–374.
- U.S. Department of Commerce, Bureau of the Census. 1990 Census of Population and Housing Public Use Micro Samples (PUMS). Readable files.
- U.S. Department of Commerce, Bureau of the Census. 1990 Census of Population, Social and Economic Characteristics, California. Washington, D.C.: U.S. Government Printing Office.
- U.S. Department of Health and Human Services. Preventing tobacco use among young people: A report of the Surgeon General. Centers for Disease Control and Prevention. U.S. Government Printing Office, S/N 017–001–00491–0, 1994.
- U.S. Department of Health and Human Services, Public Health Service. 1990. Healthy People 2000: National Health Promotion and Disease Prevention Objectives. Washington, D.C.: U.S. Government Printing Office.
- U.S. Department of Health and Human Services. Differences in the Age of Smoking Initiation between Blacks and Whites-United States. *Morbidity and Mortality Weekly Report (MMWR)*. 1991, 40(44): 754–764.
- U.S. Department of Health and Human Services. Special Focus: Surveillance for Reproductive Health. *Morbidity and Mortality Weekly Report (MMWR)*. 1993, 42(SS-6).
- Weatherspoon FD. The Devastating Impact of the Justice System on the Status of African American Males: an overview perspective. *Capital University Law Review*. 1994, 23.
- Wood D, Donald-Shervourne C, Halfon N, et al. Factors Related to Immunization Status Among Inner-City Latino and African American Preschoolers. *Pediatrics*. 1995, 96: 295–301.

Figures & Tables

Figures

- Figure 1.* Distribution of African Americans in California, by Age and Sex, 1993
- Figure 2.* Geographic Distribution of African Americans in California, by Region, 1990
- Figure 3.* Geographic Distribution of African Americans in California, by County, 1990
- Figure 4.* California Public School Dropout Rate Trend for Grades 9–12
- Figure 5.* Male Prison Population, by Race/Ethnicity
- Figure 6.* Female Prison Population, by Race/Ethnicity
- Figure 7.* California Death Rates, 1993
- Figure 8.* Top Ten Causes of African American Deaths, 1993, Age-adjusted Rate
- Figure 9.* First Trimester Prenatal Care, 1982–1992
- Figure 10.* Infant Mortality Rates, 1982–1990
- Figure 11.* Drug-related and Age-adjusted Death Rates, 1985–1992
- Figure 12.* HIV/AIDS Deaths and Age-adjusted Death Rates, 1987–1992

Tables

- Table 1.* Population of African Americans in California, 1993
- Table 2.* Geographic Distribution of African Americans, 1990
- Table 3.* African American Households by Family Type, 1990
- Table 4.* African Americans' Educational Attainment, 1990
- Table 5.* Occupational Status, 1992–1994 Average
- Table 6.* Physician and Clinic Supply in California
- Table 7.* Race/Ethnicity and Insurance Status, Age 18–64
- Table 8.* Race/Ethnicity and Regular Source of Care
- Table 9.* Race/Ethnicity and Use of Medical Services, Age 18–64
- Table 10.* Race/Ethnicity and Health Status, Age 18–64

**The California Endowment *and*
California HealthCare Foundation**
Woodland Hills, California

Printed on recycled paper